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## A Taxonomic Study of the Fern Genus *Arachniodes* Blume (Dryopteridaceae) from China

HAI HE

Ecological Restoration Center, Chengdu Institute of Biology,  
Chinese Academy of Sciences, Chengdu 610041, People's Republic of China

**ABSTRACT.**—The taxonomy of the fern genus *Arachniodes* Blume in China is rather complicated with the creation of many new names since the 1960's. The purpose of this article is to make a clarification of the genus as a whole from China and provide an enumeration of what is known at present. Through herbarium studies and field observations, the distribution, morphological criteria and subdivision of the genus *Arachniodes* from China are discussed. The total number of species has been reduced from ca 130 names to 58 names, some of which are still in need of studies to prove their acceptance. A subdivision of four sections is adopted and further completed, *i.e.* sect. *Cavaleria*, sect. *Globisorae*, sect. *Amoenae*, and sect. *Arachniodes*; and for the 50 species names included in the section *Arachniodes*, 10 species groups were proposed for the purpose of further comparison. Names of taxa that belong to *Arachniodes* known from China are enumerated in alphabetical order with information about their synonyms, their distribution and the sections and groups in which they are categorized.

The definition of the fern genus *Arachniodes* Blume is rather confused in that its species share some key characteristics with both *Dryopteris* Adans. and *Polystichum* Roth, the two largest genera of the family Dryopteridaceae. *Arachniodes* was established by Blume in 1828; however, the genus was not recognized by other pteridologists for nearly one and a half-centuries. Some of its species have experienced a lot of changes in nomenclature before Tindale (1961, 1965) resurrected *Arachniodes* as the acceptable generic name (Ching, 1934, 1938, 1962; Holttum, 1954; Morton, 1960; Ohwi, 1962). The subsequent circumscription and delimitation of the genus by Serizawa (1976), Proctor (1985, 1989), Wu and Ching (1991), and Hsieh (2000) is still incomplete; Sledge (1973) has called into question the naturalness of the genus and Tryon and Tryon (1982) put it in an expanded *Dryopteris*. However, the genus has general acceptance among world pteridologists (Pichi-Sermolli, 1977; Fraser-Jenkins, 1984, 1986; Jarrett, 1985; Gibby *et al.*, 1992; Iwatsuki, 1992; Nakaike, 1992, 2001; Ammal and Bhavananda, 1993; Shieh *et al.*, 1994; Kumar *et al.*, 1998; Moran and Øllgaard, 1998; Antony *et al.*, 2000; Hsieh, 2000) though some discrepancy about the scope of the genus exists. In the present paper the author adopts the generic concept of *Arachniodes sensu* Ching (1978), leaving *Leptorumohra* (H. Itô) H. Itô, *Acrorumohra* (H. Itô) H. Itô and *Phanerophlebiopsis* Ching, three small genera closely related to *Arachniodes*, as separate genera.

Due to the different criteria used to define species, it is very difficult to provide an exact number of species in the genus worldwide. There is little doubt that most species occur in southern China. The first checklist made by Ching (1962, 1964) recorded 22 species names from China; but since then, many new taxa have been described in the Chinese literature (Anonymous,

1974; Anonymous, 1977; Ching, 1964, 1982, 1986; Ching and Wang, 1964; Ching and Wu, 1983; Ching and Zhang, 1983; Hsieh, 1983a, 1984a, 1984b, 1986, 1991a, 1991b; Ching and Liu, 1984; Wu, 1995). To date the number of names under *Arachniodes* from China has increased to nearly 130, of which 103 species names, 2 variety names, and 4 questionable species names were documented in the Chinese version of the Flora of China (Hsieh, 2000). This has made the classification and identification of the genus very difficult in China and worldwide. It is for these reasons that the current paper has been written. It is hoped that outlining what is known about the genus will aid in the further study and enumeration of the genus.

#### DISTRIBUTION OF *ARACHNIODES*

In general *Arachniodes* is a pantropical genus (Proctor, 1985; Wu, 1997) and is distributed in the subtropical to tropical forest regions of the world, mostly in China and southern to southeastern Asia. Only a small number of species are found in Central America. About 11 species are listed by Ching (1962), Proctor (1985), and Moran and Øllgaard (1998); but only 4 species are accepted by Nakaike (2001) who excluded three African and one Australian species (Ching, 1962; Gibby *et al.*, 1992; Nakaike, 2001) in *Polystichopsis* (J. Sm.) Holttum. A comparison of Japanese ferns (Kurata, 1962; Nakaike 1975; 1992; Iwatsuki, 1992) revealed that China and Japan have the greatest species diversity as well as the most species in common. The present-day distribution of *Arachniodes* is centered in the Sino-Japan region, not the Sino-Himalayan region (Ching, 1962; Wu and Ching, 1991).

In China this genus mainly occurs along the drainage area of the Yangtze and southern provinces. Its northern boundary does not exceed that of the subtropical area, to about 34°N, except for *Arachniodes exilis*, which extends northward beyond 36°N in Shandong province (Li, 1990); its western boundary is in southeastern Tibet (95°E). Most species are concentrated in southwestern and southeastern China and grow at altitudes lower than 2000 m; a few species can reach an altitude higher than 2700 m.

#### TAXONOMIC CRITERIA

The taxonomy of *Arachniodes* is complicated by its decomposed fronds and multiple, minor morphological changes in almost all species. For a fern student who studies herbarium specimens only, it is difficult to identify species correctly. Most herbarium sheets consist merely of fronds without an attached rhizome, and without habit descriptions. The latter is important in this genus as will be discussed below. The majority of new names in the genus have been described on the basis of subtle differences in shape and other minor variations of the frond. This has led to a misleading comparison of species and has contributed to the creation of many synonyms. The most dangerous of all is the new taxa being published that are based only on single collections. For example, most of the 63 names described by Ching (1986) were only

accompanied by one cited collection and one or several duplicate sheets deposited in PE and other herbaria in China; the same is true for most of Hsieh's (1983a, 1984a, 1984b, 1986, 1991a) descriptions.

By examining more than 1250 collections of specimens in herbaria (CDBI, CTC, HITBC, KUN, PE, PYU, SZ, WNU, WUK, YAF, and some Japanese plants borrowed from TNS) and through field observations of habit in Yunnan, Sichuan, Guizhou, western Hunan and Hubei, southern Shaanxi, southern Gansu, southeastern Tibet as well as Chongqing Municipality, the author has found that the most stable and useful characters in this genus are rhizome habit and scale type. The rhizome habit can be categorized as either ascending or creeping (either short or long). The rhizome scales of most species are more or less lanceolate in shape, entire or sometimes with teeth on the margin. However, the scales found in *Arachniodes globisora* and *A. amoena* are quite specialized as will be noted below. Other useful characters include frond scales or indument, the degree of division of the lamina and each level of segmentation, shape of the lamina apex or that of the basal pinnae, shape and dissection of the ultimate pinnules, texture and luster of lamina, position of sori on the ultimate segments, and various aspects regarding the indusium. Some of the most unreliable features are the size of the frond, lamina and pinnae (especially in young fronds); the angle between rachis and the pinnae rachides; and the distribution of sori on the lamina. These characters should not be used as the sole basis for defining species. Moreover, slight to obvious morphological differences between the sterile and the fertile fronds do occur in most species, of which an extreme example is *Arachniodes dimorphophylla*.

Based on these findings, species from Yunnan and Sichuan provinces have been clarified and more than 60 names have been reduced to synonymy (He and Wu, 1996; He, 1997). But for the genus *Arachniodes* as a whole in China, it is still in need of a general revision.

#### SUBDIVISION OF THE GENUS IN CHINA

A system proposed by Hsieh (1983b) divided the genus into two sections, i.e. Sect. *Cavaleria* Ching et Y. T. Hsieh, and Sect. *Arachniodes*. The latter was further subdivided into two subsections and 11 series. This system attaches importance solely to the position of the sorus on veinlets of the ultimate pinnules when recognizing sections. As for the recognition of subsections and series, characters such as shape of apical pinnae, degree of frond complexity, shape and size of basal pinna pairs, that of the basisopic pinnule of basal pinnae and that of ultimate pinnules or segments, and so on are used. In the system proposed by Hsieh (2000), some closely related species or even morphological variations within one species are placed into different subsections or series; whereas species with more fundamental differences such as habit and scale characters are put together in one section. Therefore, it is necessary to make some revision and clarification of this system.

Mainly based on the habit of rhizome, characters of rhizome and stipe base scales, and the position of sori on the veinlets of the ultimate pinnules, the

revised subdivision of *Arachniodes* categorizes the genus into four sections (He and Wu, 1996). Three of the sections have ascending rhizomes, and especially some species of sect. *Globisorae* S. K. Wu et H. He bear nearly erect ones; whereas the majority of species in the sect *Arachniodes* have creeping rhizomes. The four sections are well distinguished on the basis of rhizome and stipe base scales as described in Table 1. Sect. *Cavaleria* is the only group in which the sori are positioned dorsally on the veinlets of the ultimate pinnules. Though some species such as *Arachniodes globisora* and *A. henryi* were described as having dorsal positioned sori, observations of specimens revealed that the sori are only occasionally dorsal and are most often terminal on the veinlets. The erection of sect. *Globisorae* and sect. *Amoena* (Ching et Y. T. Hsieh) S. K. Wu et H. He has taken into consideration their entire geographical distribution (Table 1) as well as characters of rhizomes and scales. Moreover, plants of sect. *Amoena* are much more glabrous above the base of stipes. Table 1 provides a comparison of the four sections of *Arachniodes* based mainly on plants from China and adjacent regions.

Relatively few species are in the first three sections, i.e. only one species in sect. *Cavaleria*, five species in sect. *Globisorae*, and two species in sect. *Amoena*. Analyses of specimens in PE indicate that the African species *A. foliosa* (C. Chr.) Schelpe is quite similar to *A. spectabilis* and could be placed in sect *Globisorae* and the Central American *A. denticulata* (Sw.) Ching could be safely treated in sect. *Amoena*. There is no doubt that most species worldwide should be placed in sect. *Arachniodes*. For the Chinese plants as a whole, 50 acceptable species names enumerated in this article belong to the section *Arachniodes* though some of them are still not satisfactory. To leave the problem open and for the purpose of convenience and further comparison, ten species groups are proposed for sect. *Arachniodes* based mainly on the rhizome habit, color of stipe scales, shape and division of the lamina, shape of pinnae and texture of the frond. Table 2 provides a comparison of these ten species groups in sect. *Arachniodes* from China.

#### ENUMERATION OF *ARACHNIODES* FROM CHINA

The following is an enumeration of names belonging to the genus *Arachniodes* Blume known from China. They are arranged in alphabetical order with original reference of publication. Accepted names are accompanied by synonyms, distribution, as well as sectional and group classification. Accepted names are in bold type; synonyms are in italics. Some of the presently accepted names, those marked with an asterisk have very few specimens available and more collections are required to prove their acceptance. For the distribution in China, the provinces listed are based on specimens checked in herbaria, unless relevant literature is cited.

*Arachniodes abrupta* Ching, Bull. Bot. Res., Harbin 6(3):35. 1986. =  
***Arachniodes chinensis***

- Arachniodes acuminata* Ching et C. H. Wang, Acta Phytotax. Sin. 9:367. 1964. = ***Arachniodes cavalerii***
- Arachniodes ailaoshanensis*** Ching, Bull. Bot. Res., Harbin 6(3):60. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes nipponica*. SYNONYMY: *Arachniodes jingdungensis* Ching 1986. DISTRIBUTION: Central Yunnan.
- Arachniodes amoena*** (Ching) Ching, Acta Bot. Sin. 10: 256. 1962. *Rumohra amoena* Ching, Sinensia 5: 40, pl. 1. 1934. Sect. III. *Amoena*.—DISTRIBUTION: Yunnan (Lu and Zhang, 1994), Guizhou, Hunan, Guangxi, Guangdong, Jiangxi, Fujian, Zhejiang, and Anhui (Chen, 1985).
- \****Arachniodes anshunensis*** Ching et Y. T. Hsieh, Bull. Bot. Res., Harbin 6(3):67, pl. 8, f. 3. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes henryi*. DISTRIBUTION: Central Guizhou.
- Arachniodes aristatissima*** Ching, Bull. Bot. Res., Harbin 6(3):1, pl. 1, f. 1. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Zhejiang (Hsieh, 2000; Ching, 1986).
- Arachniodes assamica*** (Kuhn) Ohwi, J. Jap. Bot. 37:76. 1962. *Aspidium assamicum* Kuhn, Linnaea 36:108. 1869. Sect. IV. *Arachniodes*, Group *Arachniodes assamica*. SYNONYMY: *Arachniodes leuconeura* Ching 1986, *Arachniodes suijiangensis* Ching et Y. T. Hsieh 1986, *Arachniodes xinpingensis* Ching 1986, *Arachniodes yaomashanensis* Ching 1986, *Arachniodes basipinnata* (Ching) Ching et Y. T. Hsieh 1991. DISTRIBUTION: Sichuan, Chongqing, Yunnan, Guizhou, and Guangxi; Northern Thailand, Burma, Northeastern India and Sikkim.
- \****Arachniodes attenuata*** Ching, Bull. Bot. Res., Harbin 6(3):2, pl. 1, f. 2. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Southern Yunnan (Ching, 1986; Hsieh, 2000) and Zhejiang (Zhang, 1993).
- Arachniodes australis* Y. T. Hsieh, Bull. Bot. Res., Harbin 11(3):27. 1991b. = ***Arachniodes caudata***
- Arachniodes austro-yunnanensis* Ching, Bull. Bot. Res., Harbin 6(3):3, pl. 1, f. 3. 1986. = ***Arachniodes sporadosora***
- Arachniodes baiseensis* Ching, Bull. Bot. Res., Harbin 6(3): 25. 1986. = ***Arachniodes cavalerii***
- Arachniodes basipinnata* (Ching) Ching ex Y. T. Hsieh, Bull. Bot. Res., Harbin 11(3):27. 1991b. = ***Arachniodes assamica***
- Arachniodes calcarata* Ching, Bull. Bot. Res., Harbin 6(3):30. 1986. = ***Arachniodes simplicior***
- Arachniodes caudata*** Ching, Acta Phytotax. Sin. 9:384. 1964. *Polystichum simplicius* (Makino) Tagawa var. *majus* Tagawa, Acta Phytotax. Geobot. 1:90. 1932. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. SYNONYMY: *Arachniodes caudata* Ching var. *kansuensis* Ching 1974, *Arachniodes kansuensis* (Ching) Y. T. Hsieh 1984b, *Arachniodes australis* Y. T. Hsieh

TABLE 1. Comparison of the four sections of *Arachniodes* mainly based on plants from China and adjacent regions

	Sect. I. <i>Cavaleria</i> Ching et Y. T. Hsieh	Sect. II. <i>Globisorae</i> S. K. Wu et H. He	Sect. III. <i>Amoena</i> (Ching et Y. T. Hsieh) S. K. Wu et H. He	Sect. IV. <i>Arachnoides</i>
Section type	<i>Arachniodes cavalerii</i> (Christ) Ohwi	<i>Arachniodes globisora</i> (Hayata) Ching	<i>Arachniodes amoena</i> (Ching) Ching	<i>Arachniodes aspidiodes</i> Blume
Rhizome habit	Ascending	Ascending, sometimes nearly erect	Ascending	Creeping (long or short)
Scales on rhizome and on the base of stipe	Long-lanceolate (up to 2.5 cm long and 0.4 cm wide), entire; thin chartaceous; yellow- brown at the base of stipe and turn dark- brown upward	Long-linear (up to 3.0 cm long but only 0.2–0.3 cm wide), apical filiform, remotely ciliated or dentated; normally soft, tortuous and curled; reddish-brown, very dense; occasionally with broader scales along adaxial side	Ovate-lanceolate (ca. 0.8 cm long and 0.3 cm wide), entire, uniform; sub- coriaceous; shining castaneous, with luster; but glabrous and glossy from the upper part of stipe to lamina	Lanceolate, linear- lanceolate, ovate or ovate lanceolate, and subulate (in general not exceed 1.0 cm long and 0.3 cm wide), entire or ciliated; soft to stiff chartaceous; often brown, reddish- brown, yellowish-brown, dark-brown or even coal black
Sori position	Dorsal on veinlets and close to the costa of the ultimate pinnule	Terminal on veinlets, occasional dorsal on veinlets of the ultimate pinnule	Terminal on veinlets	Terminal on veinlets, occasional dorsal on veinlets of the ultimate pinnule
Species	Only <i>Arachniodes</i> <i>cavalerii</i>	<i>Arachniodes globisora</i> , <i>A.</i> <i>spectabilis</i> , <i>A. gigantea</i> , <i>A. grossa</i> , and <i>A. fengii</i>	<i>Arachniodes amoena</i> , and <i>A. tonkinensis</i>	Ca. 50 species, which are put into 10 specie groups for further comparison (see table 2)
Distribution	South China; North Thailand and Japan	Mostly in south Yunnan and bordering region such as Vietnam and North Thailand, only <i>A. globisora</i> distributes to Taiwan, and <i>A. grossa</i> to Hainan	<i>A. amoena</i> widely distributes in South China, from Yunnan to Zhejiang; while <i>A. tonkinensis</i> only occurs in South Yunnan and Northern Vietnam	Widely distributes in Southern China, abundant along the Yangtze drainage area and southwards.

TABLE 1. Continued.

	Sect. I. <i>Cavaleria</i> Ching et Y. T. Hsieh	Sect. II. <i>Globisorae</i> S. K. Wu et H. He	Sect. III. <i>Amoenae</i> (Ching et Y. T. Hsieh) S. K. Wu et H. He	Sect. IV. <i>Arachnoides</i>
Literature cited	Bull. Bot. Res., Harbin 3(2): 77, 1983; Y. T. Hsieh in S. G. Wu, Fl. Reip. Pop. Sin. 5(1): 26, 2000, p.p., i.e. excl. spp. <i>Arachniodes globisora</i> (Hayata) Ching et <i>A. spinoserrulata</i> Ching; H. He & S. K. Wu, Acta Bot. Yunnan, 18(1): 57, 1996.	Acta Bot. Yunnan. 18(1): 57, 1996.— <i>Arachniodes</i> sect. <i>Cavaleria</i> auct.: Y. T. Hsieh in S. K. Wu, Fl. Reip. Pop. Sin. 5(1): 26, 2000, p.p.— <i>Arachniodes</i> ser. <i>Falcatae</i> auct.: Y. T. Hsieh, l. c. 52, 2000, p.p.— <i>Arachniodes</i> ser. <i>Festinae</i> auct.: Y. T. Hsieh, l. c. 77, 2000, p.p.	Acta Bot. Yunnan. 18(1): 58, 1996.— <i>Arachniodes</i> ser. <i>Amoenae</i> Ching et Y. T. Hsieh ex Y. T. Hsieh, Bull. Bot. Res., Harbin 3(2): 77, 1983; Y. T. Hsieh in S. G. Wu, Fl. Reip. Pop. Sin. 5(1): 44, 2000, p.p.	

TABLE 2. Characteristic comparison of the proposed 10 species groups of *Arachniodes* from China

Species group	Rhizome habit	Scale shape and color at the base of stipe	Lamina shape and degree of division	Shape of pinna	Texture of frond
<i>Arachniodes assamica</i> group	Short creeping, thick and fleshy	Lanceolate (ca. 5–8 mm long and 1–3 mm wide); entire; brown, soft	Ovate or long deltoid, with obvious acuminate apical pinna; 2-pinnate, 3-pinnatifid, occasionally 3-pinnate	Lateral pinnae normally deltoid-lanceolate	Thin chartaceous to subcoriaceous
<i>Arachniodes coniiifolia</i> group	Short creeping, and lignified	Linear to ovate lanceolate; dark brown to total coal black; relatively dense along stipe and rachis	Ovate, apical acuminate; completely 4-pinnate	Basal pinnae deltoid to deltoid lanceolate; upper pinnae broad lanceolate	Herbaceous and thin
<i>Arachniodes dimorphophylla</i> group	Short creeping	Linear-lanceolate (ca. 10 mm long); entire; reddish-brown	Deltoid-lanceolate apex caudate acuminate; 2–3-pinnate; obvious dimorphophyllous	Often lanceolate	Subcoriaceous
<i>Arachniodes exilis</i> group	Long creeping and slender, fronds far apart	Lanceolate to linear lanceolate; reddish-brown to dark brown; soft	Broad ovate to pentagonal, apical abbreviate to caudate or slightly deltoid; often 3-pinnate	Basal pinnae long deltoid and prolonged basis-copically; the upper pinnae lanceolate	Chartaceous
<i>Arachniodes festina</i> group	Very short	Lanceolate; brown to dark brown; apex ciliate; firm	Oblong to lanceolate; 3–4 pinnate	Basal pinnae deltoid; the upper pinnae lanceolate	Thin herbaceous



TABLE 2. Continued.

Species group	Rhizome habit	Scale shape and color at the base of stipe	Lamina shape and degree of division	Shape of pinna	Texture of frond
<i>Arachniodes henryi</i> group	Short creeping, thick and fleshy	Lanceolate to ovate-lanceolate; brown or yellowish brown; entire to ciliate; soft	Ovate deltoid to broad deltoid, apex acuminate or abbreviate; 3-4 pinnate, occasionally 5-pinnate	Basal pinnae ovate deltoid; the upper pinnae lanceolate	Thin herbaceous to chartaceous
<i>Arachniodes nipponica</i> group	Short creeping, thick and slightly fleshy	Ovate lanceolate; brown or yellowish brown; entire; soft	Oblong to ovate, apex lightly abbreviate and acuminate; 3-pinnate	Basal pinnae oblong; the upper pinnae lanceolate pinnules, linear lanceolate	Herbaceous to chartaceous
<i>Arachniodes rhomboidea</i> group	Short creeping, thick and slightly fleshy	Ovate lanceolate, sometimes subulate or linear lanceolate; brown or yellowish brown	Long ovate to broad ovate, with obvious caudate apical pinna; 2-3 pinnate	Basal pinnae hastate with prolonged basispic	Chartaceous to subcoriaceous
<i>Arachniodes simplicior</i> group	Short creeping, and lignified	Lanceolate, linear lanceolate, or subulate; often ciliate; brown to reddish brown	Ovate deltoid to ovate pentagonal; apex acuminate or with distinct caudate apical pinna; 2-3 pinnate, occasionally 4-pinnate	Basal pinnae very hastate to lanceolate, with many intermediate states	Chartaceous to subcoriaceous
<i>Arachniodes speciosa</i> group	Short creeping and lignified	Lanceolate to ovate lanceolate; often ciliate or dentate; brown to dark brown	Ovate to ovate pentagonal; apex acuminate; 3-4 pinnate; more or less dimorphophyllous between fronds or pinnae	Basal pinnae deltoid ovate; upper pinnae oblong lanceolate	Chartaceous to subcoriaceous

1991b. DISTRIBUTION: Southern Gansu, Sichuan, Chongqing, Hunan, Yunnan, Guizhou, Guangxi, Guangdong, and Zhejiang; Japan.

*Arachniodes caudata* Ching var. *kansuensis* Ching, Fl. Tsinling. 2:231. 1974. = ***Arachniodes caudata*** (??)

*Arachniodes caudifolia* Ching et Y. T. Hsieh, Bull. Bot. Res., Harbin 4(2):104. 1984b. = ***Arachniodes hekiana***

***Arachniodes cavalerii*** (Christ) Ohwi, J. Jap. Bot. 37:76. 1962. *Aspidium cavalerii* Christ, Bull. Geogr. Bot. Mans. 13:116. 1904. Sect. I. *Cavaleria*. SYNONYMY: *Arachniodes acuminata* Ching et C. H. Wang 1964, *Arachniodes obtusiloba* Ching et C. H. Wang 1964, *Arachniodes pseudo-cavalerii* Ching 1964, *Arachniodes sphaerosora* (Tagawa) Ching 1965, *Arachniodes baiseensis* Ching 1986, *Arachniodes guangxiensis* Ching 1896, *Arachniodes triangularis* Ching 1986. DISTRIBUTION: Yunnan, Guizhou, Hunan, Jiangxi, Anhui (Chen, 1985), Guangxi, Guangdong, Hainan, Fujian, and Zhejiang (Zhang, 1993); Japan and Northern Thailand.

*Arachniodes centro-chinensis* Ching, Fl. Tsinling. 2:229. 1974. = ***Arachniodes simulans***

***Arachniodes chinensis*** (Rosenst.) Ching, Acta Bot. Sin. 10:257. 1962. *Polystichum amabile* (Blume) J. Sm. var. *chinense* Rosenst., Repert. Sp. Nov. 13:130. 1914. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. SYNONYMY: *Arachniodes yaoshanensis* (Y. C. Wu) Serizawa 1973, *Arachniodes abrupta* Ching 1986, *Arachniodes costulisora* Ching 1986, *Arachniodes damiaoshanensis* Y. T. Hsieh 1986, *Arachniodes nibashanensis* Y. T. Hsieh 1986. DISTRIBUTION: Sichuan, Chongqing, Hunan, Yunnan, Guizhou, Guangxi, Guangdong, Hainan, Jiangxi, Fujian, and Zhejiang; Thailand, Indonesia and Malaysia.

*Arachniodes chingii* Y. T. Hsieh, Bull. Bot. Res., Harbin 6(4): 4. 1986. = ***Arachniodes simulans***

***Arachniodes coniiifolia*** (T. Moore) Ching, Acta Bot. Sin. 10:257. 1962. *Lastrea coniiifolia* T. Moore, Ind. Fil. 88. 1857. Sect. IV. *Arachniodes*, Group *Arachniodes coniiifolia*. SYNONYMY: *Arachniodes foeniculacea* Ching 1986, *Arachniodes guanxianensis* Ching 1986. DISTRIBUTION: Sichuan, Chongqing, Yunnan, and Guizhou; Nepal and Bhutan.

*Arachniodes cornopteris* Ching, Bull. Bot. Res., Harbin 6(3):4. 1986. = ***Arachniodes nanchuanensis***

*Arachniodes costulisora* Ching, Bull. Bot. Res., Harbin 6(3):62. 1986. = ***Arachniodes chinensis***

*Arachniodes cyrtomifolia* Ching, Bull. Bot. Res., Harbin 6(3):31. 1986. = ***Arachniodes nanchuanensis***

*Arachniodes damiaoshanensis* Y. T. Hsieh, Bull. Bot. Res., Harbin 6(4):6, f. 3. 1986. = ***Arachniodes chinensis***

*Arachniodes dayaoensis* Y. T. Hsieh, Acta Bot. Yunnan. 5(1):57. 1983a. = ***Arachniodes simulans***

- Arachniodes decomposita* Ching, Bull. Bot. Res., Harbin 6(3):49. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes henryi*. DISTRIBUTION: Guizhou.
- Arachniodes dimorphophylla* (Hayata) Ching, Acta Bot. Sin. 10:257. 1962. *Polystichum dimorphophyllum* Hayata, Mater. Fl. Form. 30:428. 1911. Sect. IV. *Arachniodes*, Group *Arachniodes dimorphophylla*. DISTRIBUTION: Taiwan (Ching, 1962); Japan.
- Arachniodes elevata* Ching, Bull. Bot. Res., Harbin 6(3):40. 1986. = *Arachniodes simulans*
- Arachniodes emeiensis* Ching, Bull. Bot. Res., Harbin 6(3):5, pl. 1, f. 4. 1986. = *Arachniodes sporadosora*
- Arachniodes erythrosora* Ching, Bull. Bot. Res., Harbin 6(3):42. 1986. = *Arachniodes festina*
- Arachniodes exilis* (Hance) Ching, Acta Bot. Sin. 10: 256.1962. *Aspidium exilis* Hance, J. Bot. 21:268. 1883. Sect. IV. *Arachniodes*, Group *Arachniodes exilis*. SYNONYMY: *Arachniodes heyuanensis* Ching 1986, *Arachniodes fengyangshanensis* Ching et C. F. Zhang ex Y. T. Hsieh 1991a. DISTRIBUTION: Hunan, Henan, Shandong, Anhui, Guangxi, Guangdong, Jiangxi, Fujian, Taiwan, Jiangsu, and Zhejiang; Japan.
- Arachniodes falcata* Ching, Bull. Bot. Res., Harbin 6(3):7, pl. 2, f. 1. 1986. = *Arachniodes nanchuanensis*
- Arachniodes fengii* Ching, Bull. Bot. Res., Harbin 6(3):8, pl. 2, f. 2. 1986. Sect. II. *Globisorae*. DISTRIBUTION: Southern Yunnan bordering Vietnam (very rare).
- Arachniodes fengyangshanensis* Ching et C. F. Zhang ex Y. T. Hsieh, Bull. Bot. Res., Harbin 11(2):2. 1991a. = *Arachniodes exilis*
- Arachniodes festina* (Hance) Ching, Acta Bot. Sin. 10:257. 1962. *Aspidium festinum* Hance, J. Bot. 269. 1883. Sect. IV. *Arachniodes*, Group *Arachniodes festina*. SYNONYMY: *Arachniodes erythrosora* Ching 1986. DISTRIBUTION: Guangxi, Guangdong, Taiwan, Fujian (Editorial Group of the Flora of Fujian, 1991), and Zhejiang (Zhang, 1993).
- Arachniodes foeniculacea* Ching, Bull. Bot. Res., Harbin 6(3):45. 1986. = *Arachniodes coniiifolia*
- Arachniodes fujiangensis* Ching, Bull. Bot. Res., Harbin 6(3):29, pl. 6, f. 2. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Chongqing, Guizhou, Jiangxi, Fujian, and Zhejiang.
- Arachniodes futeshanensis* Y. T. Hsieh, Bull. Bot. Res., Harbin 6(4):5. 1986. = *Arachniodes sporadosora*
- Arachniodes gigantea* Ching, Bull. Bot. Res., Harbin 6(3):66. 1986. Sect. II. *Globisorae*. DISTRIBUTION: Southern (bordering Northern Vietnam) and Western Yunnan.
- Arachniodes gijiangensis* Ching, Bull. Bot. Res., Harbin 6(3):33. 1986. = *Arachniodes nanchuanensis*

- Arachniodes gizushanensis* Ching, Bull. Bot. Res., Harbin 6(3):41. 1986. =  
***Arachniodes simulans***
- Arachniodes globisora*** (Hayata) Ching, Acta Phytotax. Sin. 9:383. 1964. *Polystichum globisorum* Hayata, Icon. Pl. Form. 4:139, f. 131. 1914. Sect. II. *Globisora*. SYNONYMY: *Arachniodes guangnanensis* Y. T. Hsieh 1984, *Arachniodes maguanensis* Ching et Y. T. Hsieh 1986, *Arachniodes spinu-serrulata* Ching 1986, *Arachniodes menglianensis* Y. T. Hsieh 1991a. DISTRIBUTION: Yunnan (abundant in the southern counties) and Taiwan; Northern Thailand.
- Arachniodes gongshanensis* Ching et Y. T. Hsieh, Bull. Bot. Res., Harbin 6(3):68, pl. 8, f. 4. 1986. = ***Arachniodes simulans***
- Arachniodes gradata*** Ching, Bull. Bot. Res., Harbin 6(3):39. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Zhejiang.
- Arachniodes grossa*** (Tard. et C. Chr.) Ching, Acta Bot. Sin. 10:257. 1962. *Rumohra grossa* Tard. et C. Chr., Notul. Syst. (Paris) 7(2):85. 1938. Sect. II. *Globisora*. DISTRIBUTION: Hainan and Southern Guangdong; Northern Vietnam.
- Arachniodes guangnanensis* Y. T. Hsieh, Bull. Bot. Res., Harbin 4(2):106, f. 3. 1984b. = ***Arachniodes globisora***
- Arachniodes guangtongensis* Ching, Bull. Bot. Res., Harbin 6(3):58, pl. 8, f. 1. 1986. = ***Arachniodes sporadosora***
- Arachniodes guangxiensis* Ching, Bull. Bot. Res., Harbin 6(3):27. 1986. =  
***Arachniodes cavalerii***
- Arachniodes guanxianensis* Ching, Bull. Bot. Res., Harbin 6(3):50. 1986. =  
***Arachniodes conifolia***
- Arachniodes hainanensis*** (Ching) Ching, Acta Bot. Sin. 10:258. 1962. *Rumohra hainanensis* Ching, Sinensia 5:44. 1934. Sect. IV. *Arachniodes*, Group *Arachniodes dimorphophylla*. DISTRIBUTION: Hainan.
- Arachniodes hekiana*** Kurata, J. Geobot. 13:99. 1965. Sect. IV. *Arachniodes*, Group *Arachniodes rhomboidea*. SYNONYMY: *Arachniodes rhomboidea* var. *sinica* Ching 1964, *Arachniodes caudifolia* Ching et Y. T. Hsieh 1984b. DISTRIBUTION: Sichuan, Chongqing, Hunan, Anhui, Yunnan, Guizhou, Guangxi, Guangdong, Fujian, and Zhejiang; Japan.
- Arachniodes hekouensis* Ching, Bull. Bot. Res., Harbin 6(3):57, pl. 7, f. 4. 1986. =  
***Arachniodes jinpingensis***
- Arachniodes henryi*** (Christ) Ching, Acta Bot. Sin. 10:258. 1962. *Polystichum henryi* Christ, Not. Syst. I. 36. 1909. Sect. IV. *Arachniodes*, Group *Arachniodes henryi*. DISTRIBUTION: Southern Yunnan; Northern Vietnam, Thailand and Burma.
- Arachniodes heyuanensis* Ching, Bull. Bot. Res., Harbin 6(3):9, pl. 2, f. 3. 1986. =  
***Arachniodes exilis***

- \**Arachniodes huapingensis* Ching, Bull. Bot. Res., Harbin 6(3):53, pl. 7, f. 2. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes speciosa*. DISTRIBUTION: Guangxi.
- Arachniodes hunanensis* Ching, Bull. Bot. Res., Harbin 6(3):10, pl. 2, f. 4. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes rhomboidea*. DISTRIBUTION: Hunan.
- \**Arachniodes hupingshanensis* S. F. Wu in W. T. Wang, Keys Vasc. Pl. Wuling Mount. 572. 1995. Sect. IV. *Arachniodes*, Group *Arachniodes henryi*. DISTRIBUTION: Hunan (Wu, 1995).
- \**Arachniodes ishingensis* Ching et Y. T. Xie, Acta Phytotax. Sin. 22(2):161, pl. 1, f. 2. 1984a. Sect. IV. *Arachniodes*, Group *Arachniodes exilis*. DISTRIBUTION: Jiangsu and Zhejiang.
- \**Arachniodes jiangxiensis* Ching, Bull. Bot. Res., Harbin 6(3):43. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes henryi*. DISTRIBUTION: Jiangxi.
- Arachniodes jinfushanensis* Ching, Bull. Bot. Res., Harbin 6(3):11, pl. 3, f. 1. 1986. = *Arachniodes simulans*
- Arachniodes jingdungensis* Ching, Bull. Bot. Res., Harbin 6(3):64. 1986. = *Arachniodes ailaoshanensis*
- Arachniodes jinpingensis* Y. T. Hsieh, Acta Bot. Yunnan. 5(1):55, f. 1. 1983a. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. SYNONYMY: *Arachniodes valida* Y. T. Hsieh 1983a, *Arachniodes hekouensis* Ching 1986, *Arachniodes mengziensis* Ching 1986. DISTRIBUTION: Southern Yunnan.
- Arachniodes jiulunshanensis* Ching, Bull. Bot. Res., Harbin 2(2):67. 1982. = *Arachniodes simplicior*
- Arachniodes kansuensis* (Ching) Y. T. Hsieh, Bull. Bot. Res., Harbin 4(2): 109. 1984b. = *Arachniodes caudata*
- \**Arachniodes lanceolata* Y. T. Hsieh, Bull. Bot. Res., Harbin 11(2):4. 1991a. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Sichuan (Mt. Emei).
- Arachniodes leuconeura* Ching, Bull. Bot. Res., Harbin 6(3):12, pl. 3, f. 2. 1986. = *Arachniodes assamica*
- Arachniodes liyangensis* Ching et Y. C. Lan, Fl. Jiangsu. 1:63, 466. 1977. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Jiangsu (Anonymous, 1977) and Anhui (Chen, 1985).
- Arachniodes longipinna* Ching, Bull. Bot. Res., Harbin 6(3):13, pl. 3, f. 3. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Guangxi.
- \**Arachniodes lushanensis* Ching, Bull. Bot. Res., Harbin 6(3):61. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes exilis*. DISTRIBUTION: Jiangxi.
- Arachniodes lushuiensis* Y. T. Hsieh, Bull. Bot. Res., Harbin 4(2):108, f. 4. 1984b. = *Arachniodes simulans*

- Arachniodes maguanensis* Ching et Y. T. Hsieh, Bull. Bot. Res., Harbin 6(4):2, f. 2. 1986. = ***Arachniodes globisora***
- \****Arachniodes maoshanensis*** Ching, Bull. Bot. Res., Harbin 6(3):54, pl. 7, f. 3. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes exilis*. DISTRIBUTION: Zhejiang.
- Arachniodes menglianensis* Y. T. Hsieh, Bull. Bot. Res., Harbin 11(2):3. 1991a. = ***Arachniodes globisora***
- Arachniodes mengziensis* Ching, Bull. Bot. Res., Harbin 6(3):14, pl. 3, f. 4. 1986. = ***Arachniodes jinpingensis***
- \****Arachniodes michelii*** (H. Lév.) Ching ex Y. T. Hsieh, Bull. Bot. Res., Harbin 11(3):27. 1991b. *Dryopteris michelii* Lév., Fl. Kouy-Tscheou. 493. 1915. Sect. IV. *Arachniodes*, Group *Arachniodes exilis*. DISTRIBUTION: Guizhou and Hunan (Hsieh, 2000).
- Arachniodes multifida* Ching, Bull. Bot. Res., Harbin 6(3):15, pl. 4, f. 1. 1986. = ***Arachniodes sporadosora***
- Arachniodes nanchuanensis*** Ching et Z. Y. Liu, Bull. Bot. Res., Harbin 4(4):21, f. 50. 1984. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. SYNONYMY: *Arachniodes cornopteris* Ching 1986, *Arachniodes cyrtomifolia* Ching 1986, *Arachniodes falcata* Ching 1986, *Arachniodes gijiangensis* Ching 1986, *Arachniodes semifertilis* Ching 1986. DISTRIBUTION: Chongqing (very abundant), Sichuan, and Yunnan.
- Arachniodes nanqingensis*** Ching, Bull. Bot. Res., Harbin 6(3):38. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Fujian.
- Arachniodes neoaristata* Ching, Bull. Bot. Res., Harbin 6(3):34, pl. 6, f. 3. 1986. = ***Arachniodes sporadosora***
- Arachniodes nibashanensis* Y. T. Hsieh, Bull. Bot. Res., Harbin 6(4):7, f. 4. 1986. = ***Arachniodes chinensis***
- Arachniodes nigrospinosa*** (Ching) Ching, Acta Bot. Sin. 10:258. 1962. *Polystichum nigrospinum* Ching, Bull. Fan Mem. Inst. Biol. Bot. Ser. 2:191, f. 6. 1931. Sect. IV. *Arachniodes*, Group *Arachniodes coniifolia*. DISTRIBUTION: Guizhou, Guangxi, Guangdong, and Taiwan.
- Arachniodes nipponica*** (Rosenst.) Ohwi, J. Jap. Bot. 37:76. 1962. *Polystichum nipponicum* Rosenst., Repert. Sp. Nov. 13:190. 1914. Sect. IV. *Arachniodes*, Group *Arachniodes nipponica*. DISTRIBUTION: Sichuan, Chongqing, Yunnan, Guizhou, Hunan, Guangdong, Jiangxi, and Zhejiang; Japan.
- Arachniodes nitidula* Ching, Bull. Bot. Res., Harbin 6(3):59, pl. 8, f. 2. 1986. = ***Arachniodes spectabilis***
- Arachniodes obtusiloba* Ching et C. H. Wang, Acta Phytotax. Sin. 9:369. 1964. = ***Arachniodes cavalerii***
- Arachniodes obtusipinnula* Ching et Y. T. Hsieh, Acta Phytotax. Sin. 22(2):160, pl. 1, f. 1. 1984a. = ***Arachniodes tonkinensis***

- Arachniodes parasimplicior* Ching ex Y. T. Hsieh, Bull. Bot. Res., Harbin 11(2):1. 1991a. = ***Arachniodes simplicior***
- Arachniodes pianmaensis* Ching, Bull. Bot. Res., Harbin 6(3):65. 1986. = ***Arachniodes simulans***
- Arachniodes pseudo-aristata* (Tagawa) Ohwi, J. Jap. Bot. 37:76. 1962. = ***Arachniodes sporadosora***
- Arachniodes pseudo-assamica*** Ching, Bull. Bot. Res., Harbin 6(3):16, pl. 4, f. 2. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes assamica*. DISTRIBUTION: Southern Yunnan.
- Arachniodes pseudo-cavalerii* Ching, Acta Phytotax. Sin. 9:376. 1964. = ***Arachniodes cavalerii***
- Arachniodes pseudo-hekiana*** Kurata, J. Geobot. 16:5. 1968. Sect. IV. *Arachniodes*, Group *Arachniodes rhomboidea*. DISTRIBUTION: Yunnan, Guangdong, and Jiangxi; Japan.
- Arachniodes pseudo-longipinna*** Ching, Bull. Bot. Res., Harbin 6(3):17. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Guangxi.
- Arachniodes pseudo-simplicior* Ching, Bull. Bot. Res., Harbin 6(3):47. 1986. = ***Arachniodes ziyunshanensis***
- Arachniodes reducta*** Y. T. Hsieh et Y. P. Wu, Bull. Bot. Res., Harbin 4(2):105, f. 2. 1984b. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. DISTRIBUTION: Zhejiang.
- Arachniodes rhomboidea*** (Wall. ex C. Presl) Ching, Acta Bot. Sin. 9:384. 1964. *Polystichum rhomboideum* Wall. ex C. Presl, Epim. Bot. 54. 1851. Sect. IV. *Arachniodes*, Group *Arachniodes rhomboidea*. DISTRIBUTION: Sichuan, Chongqing, Hubei, Hunan, Anhui, Yunnan, Guizhou, Guangxi, Guangdong, Jiangxi, Fujian, Jiangsu, and Zhejiang; Japan, India and Nepal.
- Arachniodes rhomboidea* (Wall. ex Mett.) Ching var. *sinica* Ching, Acta Phytotax. Sin. 9:384. 1964. = ***Arachniodes hekiana***
- Arachniodes semifertilis* Ching, Bull. Bot. Res., Harbin 6(3):18, pl. 4, f. 3. 1986. = ***Arachniodes nanchuanensis***
- \****Arachniodes setifera*** Ching, Bull. Bot. Res., Harbin 6(3):52, pl. 7, f. 1. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes exilis*. DISTRIBUTION: Guangxi.
- Arachniodes shuangbaiensis* Ching, Bull. Bot. Res., Harbin 6(3):21, pl. 5, f. 1. 1986. = ***Arachniodes ziyunshanensis***
- Arachniodes sichuanensis* Ching, Bull. Bot. Res., Harbin 6(3):36. 1986. = ***Arachniodes sporadosora***
- Arachniodes similis* Ching, Bull. Bot. Res., Harbin 6(3):19, pl. 4, f. 4. 1986. = ***Arachniodes tiendongensis***
- Arachniodes simplicior*** (Makino) Ohwi, J. Jap. Bot. 37:76. 1962. *Aspidium aristatum* var. *simplicius* Makino, Bot. Mag. Tokyo 15:65. 1901. Sect. IV.

*Arachniodes*, Group *Arachniodes simplicior*. SYNONYMY: *Arachniodes jiulunshanensis* Ching 1982, *Arachniodes tibetana* Ching et S. K. Wu 1983, *Arachniodes calcarata* Ching 1986, *Arachniodes parasimplicior* Ching ex Y. T. Hsieh 1991a. DISTRIBUTION: Southern Gansu, Southern Shaanxi, Henan (Hsieh, 2000), Sichuan, Chongqing, Hubei, Hunan, Anhui, Xizang (Tibet), Yunnan, Guizhou, Guangxi, Guangdong (Miao *et al.*, 1997), Jiangxi, Fujian, Jiangsu (Anonymous, 1977), and Zhejiang; Japan.

***Arachniodes simulans*** (Ching) Ching, Acta Bot. Sin. 10:259. 1962. *Rumohra simulans* Ching, Sinensia 5:54, pl. 8. 1934. Sect. IV. *Arachniodes*, Group *Arachniodes henryi*. SYNONYMY: *Arachniodes centro-chinensis* Ching 1974, *Arachniodes dayaoensis* Y. T. Hsieh 1983a, *Arachniodes lushuiensis* Y. T. Hsieh 1984b, *Arachniodes chingii* Y. T. Hsieh 1986, *Arachniodes elevata* Ching 1986, *Arachniodes gizushanensis* Ching 1986, *Arachniodes gongshanensis* Ching et Y. T. Hsieh 1986, *Arachniodes jinfushanensis* Ching 1986, *Arachniodes pianmaensis* Ching 1986, *Arachniodes yunnanensis* Ching 1986. DISTRIBUTION: Southern Gansu, Southern Shaanxi, Sichuan, Chongqing, Hubei, Hunan, Jiangxi, Yunnan, and Guizhou; Bhutan.

*Arachniodes sino-aristata* Ching, Bull. Bot. Res., Harbin 6(3):20. 1986. = ***Arachniodes sporadosora***

***Arachniodes sino-rhomboidea*** Ching, Bull. Bot. Res., Harbin 6(3):55. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes henryi*. DISTRIBUTION: Sichuan.

*Arachniodes sparsa* Ching, Bull. Bot. Res., Harbin 6(3):22, pl. 5, f. 2. 1986. = ***Arachniodes sporadosora***

***Arachniodes speciosa*** (D. Don) Ching, Acta Bot. Sin. 10:259. 1962. *Aspidium speciosum* D. Don, Prodr. Fl. Nepal. 5. 1825. Sect. IV. *Arachniodes*, Group *Arachniodes speciosa*. DISTRIBUTION: Yunnan, Guangxi and Hainan; Sikkim, Bhutan and Nepal.—This is a questionable species. Specimens deposited in PE, PYU and KUN, which were previously identified by Ching under this name, are now typically placed under other names, most of which are synonyms of *Arachniodes sporadosora*.

***Arachniodes spectabilis*** (Ching) Ching, Acta Bot. Sin. 10:259. 1962. *Rumohra spectabilis* Ching, Sinensia 5: 58, pl. 11. 1934. Sect. II. *Globisorae*. SYNONYMY: *Arachniodes nitidula* Ching 1986. DISTRIBUTION: Southern Yunnan; Northern Thailand, and Laos (Itô, 1974).

*Arachniodes sphaerosora* (Tagawa) Ching, Acta Phytotax. Sin. 10:192. 1965. = ***Arachniodes cavalerii***

*Arachniodes spinu-serrulata* Ching, Bull. Bot. Res., Harbin 6(3):46, pl. 6, f. 4. 1986. = ***Arachniodes globisora***

***Arachniodes sporadosora*** (Kunze) Nakaike, Enum. Pteridophyt. Japon. Fil. 192. 1975. *Aspidium sporadosorum* Kunze, Bot. Zeit. 6: 556. 1848. Sect. IV. *Arachniodes*, Group *Arachniodes speciosa*. SYNONYMY: *Arachniodes pseudo-aristata* (Tagawa) Ohwi 1962, *Arachniodes subaristata* Ching et Y.



T. Hsieh 1984b, *Arachniodes austro-yunnanensis* Ching 1986, *Arachniodes emeiensis* Ching 1986, *Arachniodes futeshanensis* Y. T. Hsieh 1986, *Arachniodes guangtongensis* Ching 1986, *Arachniodes multifida* Ching 1986, *Arachniodes neo-aristata* Ching 1986, *Arachniodes sparsa* Ching 1986, *Arachniodes sichuanensis* Ching 1986, *Arachniodes sino-aristata* Ching 1986. DISTRIBUTION: Sichuan, Chongqing, Hunan, Yunnan, Guizhou, Guangxi, Jiangxi, Fujian, and Zhejiang; Japan.

*Arachniodes subamoena* Ching, Bull. Bot. Res., Harbin 6(3):51. 1986. = ***Arachniodes tonkinensis***

*Arachniodes subaristata* Ching et Y. T. Hsieh, Bull. Bot. Res., Harbin 4(2):103, f. 1. 1984b. = ***Arachniodes sporadosora***

*Arachniodes suijiangensis* Ching et Y. T. Hsieh, Bull. Bot. Res., Harbin 6(4):1, f. 1. 1986. = ***Arachniodes assamica***

*Arachniodes tibetana* Ching et S. K. Wu in C. Y. Wu, Fl. Xizang. 1. 243, pl. 59, f. 3–4. 1983. = ***Arachniodes simplicior***

***Arachniodes tiendongensis*** Ching et C. F. Zhang, Bull. Bot. Res., Harbin 3(3):9. 1983. Sect. IV. *Arachniodes*, Group *Arachniodes rhomboidea*. SYNONYMY: *Arachniodes similis* Ching 1986 DISTRIBUTION: Zhejiang and Guangdong.

***Arachniodes tonkinensis*** (Ching) Ching, Acta Bot. Sin. 10:260. 1962. *Rumohra tonkinensis* Ching, Sinensia 5:52. 1934. Sect. III. *Amoenae*. Synonymy: *Arachniodes obtusipinnula* Ching et Y. T. Hsieh 1984a, *Arachniodes subamoena* Ching 1986. DISTRIBUTION: Southern Yunnan; Northern Vietnam.

*Arachniodes triangularis* Ching, Bull. Bot. Res., Harbin 6(3):26, pl. 6, f. 1. 1986. = ***Arachniodes cavalerii***

*Arachniodes valida* Y. T. Hsieh, Acta Bot. Yunnan. 5(1):56. 1983a. = ***Arachniodes jinpingensis***

\****Arachniodes wulingshanensis*** S. F. Wu in W. T. Wang, Keys Vasc. Pl. Wuling Mount. 572, t. 5. 1995. Sect. IV. *Arachniodes*, Group *Arachniodes assamica*. DISTRIBUTION: Hunan (Wu, 1995).

*Arachniodes xinpingensis* Ching, Bull. Bot. Res., Harbin 6(3):23, pl. 5, f. 3. 1986. = ***Arachniodes assamica***

\****Arachniodes yandangshanensis*** Y. T. Xie, Acta Phytotax. Sin. 22(2):161, pl. 1, f. 3. 1984a. Sect. IV. *Arachniodes*, Group *Arachniodes speciosa*. DISTRIBUTION: Zhejiang.

*Arachniodes yaomashanensis* Ching, Bull. Bot. Res., Harbin 6(3):32. 1986. = ***Arachniodes assamica***

*Arachniodes yaoshanensis* (Y. C. Wu) Serizawa, J. Jap. Bot. 48:219. 1973. = ***Arachniodes chinensis***

***Arachniodes yinjiangensis*** Ching, Bull. Bot. Res., Harbin 6(3):44. 1986. Sect. IV. *Arachniodes*, Group *Arachniodes henryi*. DISTRIBUTION: Northeastern Guizhou.

*Arachniodes yoshinagae* (Makino) Ching, Acta Phytotax. Sin. 9:383. 1964. *Aspidium yoshinagae* Makino, Bot. Mag. Tokyo 13:57. 1899. Sect. IV. *Arachniodes*, Group *Arachniodes assamica*. DISTRIBUTION: Chongqing, Hunan; Japan.

*Arachniodes yunnanensis* Ching, Bull. Bot. Res., Harbin 6(3):24, pl. 5, f. 4. 1986. = *Arachniodes simulans*

*Arachniodes yunqiensis* Y. T. Hsieh, Bull. Bot. Res., Harbin 6(4):3. 1986. = *Arachniodes ziyunshanensis*

*Arachniodes ziyunshanensis* Y. T. Xie, Acta Phytotax. Sin. 22(2):162, pl. 1, f. 4. 1984. Sect. IV. *Arachniodes*, Group *Arachniodes simplicior*. SYNONYMY: *Arachniodes pseudo-simplicior* Ching 1986, *Arachniodes shuangbaiensis* Ching 1986, *Arachniodes yunqiensis* Y. T. Hsieh 1986. DISTRIBUTION: Chongqing, Hunan, Yunnan, and Zhejiang.

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